

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph [0002], beginning at page 1 line 8, with the following rewritten paragraph:

--The present invention relates to a polyhydroxyalkanoate (hereinafter abbreviated as "PHA") containing a novel structural unit and a production process for the same. For instance, the present invention relates to a novel PHA that contains a monomer unit having a ~~cyclohexyl~~ cyclohexyl structure at its side chain, and a production process for the PHA using an alkanoic acid as a raw material and also using a microorganism having an ability to produce and accumulate PHA in the microbial cell.--

Please replace the paragraph [0013], beginning at page 9, line 2, with the following rewritten paragraph:

--In the ring-opening polymerization method, lactic acid is oligomerized by a dehydration reaction at first, and the resulting oligomer is depolymerized to make the lactic acid into a lactide (a cyclic dimer), followed by subjecting the lactide to further ring-opening polymerization. Because the method follows such a complicated process, the resulting ~~polyactic~~ polylactic acid is too expensive to be used as a toner resin.--

Please replace the paragraph [0042], beginning at page 23, line 14, with the following rewritten paragraph:

--FIG. 3 is a mass spectrum of ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate methylester obtained by the GC-MS measurement of the methylesterified product of the monomer unit structuring the PHA obtained in Example 1.--

Please replace the paragraph [0139], beginning at page 53, line 19, with the following rewritten paragraph:

--Specific examples of the polymerizable monomers include: styrene and derivatives thereof such as styrene, o-methylstyrene, m-methylstyrene, p-methylstyrene, p-methoxystyrene, p-phenylstyrene, p-chlorostyrene, 3,4-dichlorostyrene, p-ethylstyrene, 2,4-dimethylstyrene, p-n-butylstyrene, p-tert-butylstyrene, p-n-hexylstyrene, p-n-octylstyrene, p-n-nonylstyrene, p-n-decylstyrene, and p-n-dodecylstyrene; ethylenically unsaturated monoolefins such as ethylene, propylene, butylene, and isobutylene; unsaturated polylenes such as butadiene; halogenated vinyls such as vinyl chloride, vinylidene chloride, vinyl bromide, and vinyl fluoride; vinyl esters such as vinyl acetate, vinyl propionate, and vinyl benzoate; .alpha.-methylene aliphatic monocarboxylates such as methyl methacrylate, ethyl methacrylate, propyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, n-octyl methacrylate, dodecyl methacrylate, 2-ethylhexyl methacrylate, stearyl methacrylate, phenyl methacrylate, dimethylaminoethyl methacrylate, and diethylaminoethyl methacrylate; acrylates such as methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, propyl acrylate, n-octyl acrylate, dodecyl acrylate, 2-ethylhexyl acrylate, stearyl acrylate, 2-chloroethyl acrylate, and phenyl acrylate; vinyl ethers such as vinyl methyl ether, vinyl ethyl ether, and vinyl isobutyl ether; vinyl ketones such as vinyl methyl ketone, vinyl hexyl ketone, and methyl isopropenyl ketone; N-vinyl compounds such as N-vinylpyrrole, N-vinylcarbazole, N-vinylindole, and N-vinyl pyrrolidone; vinyl naphthalenes; acrylic acid derivatives or methacrylic acid derivatives such as acrylonitrile, methacrylonitrile, and acrylamide; esters of the above-described α , β -unsaturated acids and diesters of the above-described dibasic acids; dicarboxylic acids such as maleic acid, methyl maleate, butyl maleate, dimethyl maleate, phthalic acid, succinic acid, and terephthalic acid; polyol compounds

such as ethylene glycol, diethylene glycol, triethylene glycol, 1,2-propylene glycol, 1,3-propylene glycol, 1,4-butanediol, 1,6-hexanediol, bisphenol A, hydrogenated bisphenol A, and polyoxyethylenated bisphenol A; ~~isocyanates~~ isocyanates such as p-phenylene diisocyanate, p-xylylene diisocyanate, and 1,4-tetramethylene ~~diisocyanate~~ diisocyanate; amines such as ethylamine, butylamine, ethylenediamine, 1,4-diaminobenzene, 1,4-diaminobutane, and monoethanolamine; and epoxy compounds such as diglycidyl ether, ethyleneglycol diglycidyl ether, bisphenol A glycidyl ether, and hydroquinone diglycidyl ether.--

Please replace the paragraph [0141], beginning at page 56, line 8, with the following rewritten paragraph:

--Examples of the polyfunctional crosslinking agent having two or more functionalities include pentaerythritol acrylate, trimethylolethane triacrylate, trimethylolpropane triacrylate, tetramethylolmethane tetraacrylate, oligoester acrylate, and those obtained by substituting methacrylate of the above compounds for acrylate, 2-2-bis(4-methacryloxy polyethoxyphenyl)propane, diallyl phthalate, triallyl cyanurate, triallyl ~~asecyanurate~~ isocyanurate, triallyl isocyanurate, triallyl trimellitate, and diaryl chlorrendate.--

Please replace the paragraph [0201], beginning at page 78, line 5, with the following rewritten paragraph:

--Furthermore, the obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. FIG. 2 shows a total ion chromatogram (TIC), and FIG. 3 shows a mass spectrum with a peak (about 25.5) containing a 3-hydroxy-3-

~~cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate methylester derived from the desired unit. Table 1 shows the TIC ratio of each unit of the PHA computed from the dry weight of the microbial cells, the weight of the polymer, and the area ratio of the TIC.--

Please replace the paragraph [0205], beginning at page 79, line 27, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 2, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit.--

Please replace the paragraph [0208], beginning at page 81, line 13, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 3, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit.--

Please replace the paragraph [0211], beginning at page 83, line 2, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-

MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 4, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit.--

Please replace the paragraph [0214], beginning at page 84, line 10, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 5, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit.--

Please replace the paragraph [0217], beginning at page 85, line 16, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 5, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit.--

Please replace the paragraph [0220], beginning at page 87, line 7, with the following rewritten paragraph:

--The obtained PHA was subjected to a methanolysis according to the conventional method, followed by being analyzed with a gas chromatography-mass spectrometer (GC-MS, Shimadzu QP-5050, EI method) to identify a methylesterified product of the monomer unit of the PHA. As a result, as shown in Table 7, it was confirmed that the PHA contains a ~~3-hydroxy-3-cyclohexylpropionate~~ 3-hydroxy-3-cyclohexylpropionate unit and a 3-hydroxy-5-cyclohexylvalerate unit.--